# STUDIES IN THE TENEBRIONIDÆ NUMBER THREE

(Coleoptera)

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The species of *Nyctoporis* defined below has been waiting for publication for more than a decade under a manuscript name. It is related to *carinata* Lec. The sculpturing of the head, pronotum, and elytra has been described in detail to form a basis of comparison for a synoptic revision of the tribe Nyctoporini in the near future.

## **Nyctoporus vandykei** Blaisdell, n. sp.

Form elongate, comparatively slender, noticeably narrowed anteriorly and about three times as long as wide. Punctation foveate in character. Color deep black and moderately opaque. Apices of the tibiæ within and the tarsi beneath clothed with a silky ferruginous pubescence.

Head carinate, little wider than long, widest across anterior canthi, the latter more prominent than the eyes and tempora which are parallel on the same line; the tempora very slightly and gradually arcuate posteriorly; sides before the eyes very moderately convergent anteriorly, slightly arcuate and undulate, feebly notched at the oblique suture. Epistomal apex truncate between the moderately prominent and obtuse angles. Labrum transverse, apex quite arcuate, very feebly subemarginate in middle third. Frons extremely coarsely and densely punctate in the central area, punctures concave, much smaller laterally and anteriorly, especially on the epistoma; surface plane, irregular, median carina sublinear and weak, arising gradually from the vertex and extending to near the epistomal base where it is atrophic; supra-orbital carina over the eyes continued forward to the lateral margin on the supra-antennal convexity as a very irregular ridge, lateral to which and against the eye the surface is rather strongly impressed. Eyes not in the least prominent, short, transverse, about one and a half times wider than long, small as viewed from above, arcuately embracing the anterior canthi; facets rather coarse and extremely feebly convex. Mentum transverse, apex truncate; sides angulate, very obliquely straight and converging both apically and basally from the angle; surface impressed at base before the submental suture. Antennæ little longer than the pronotum and a little less than the width, moderately stout, not incrassate; second joint short and annular, third obconical and elongate, a little longer than the fourth, the latter slightly longer than wide; fifth to the eighth inclusive subequal in size and as wide as long, ninth and tenth very feebly triangular, slightly flattened on their

lateral surfaces, just the least longer than wide, eleventh smaller, irregularly rounded, apex feebly oblique.

Pronotum subquadrate, about one-sixth wider than long, apex slightly arcuate, broadly but not strongly sinuate laterally within the angles, the latter briefly prominent and obtusely rounded; sides very moderately arcuate anteriorly, becoming less so posteriorly and almost straight and sinuate for a short distance before the basal angles, the latter subacutely prominent; base a little wider than apex, broadly arcuate and sinuate within the angles; lateral and basal margins slightly reflexed; disk densely, extremely coarsely punctate, punctures concave and foveiform, intervals raised and more or less interrupted, forming irregular ridges; surface impressed laterally at middle against the margin, impression rather broad, rounded and very shallow; just within is a second or discal which is small and extremely feebly indicated; lateral surface is also narrowly impressed along the submarginal area and within the basal angles.

Elytra elongate, oval, about twice as long as wide, almost three times as long as the pronotum; base feebly emarginate, very slightly wider than the pronotal base; humeri small and rather sharply obtusangular; scutellum small, transverse and marginal; sides broadly and very moderately arcuate, becoming more strongly so at apex, where the small individual sutural angles are acutely prominent, and divaricate; disk slightly flattened in the central area, otherwise quite evenly arcuate from side to side, upper part of the apical declivity quite abruptly and arcuately declivous, thence oblique and straight on the apical lobe to apex; ten-striate, striæ of moderate sized, round and shallow punctures, those of each series separated one from another by an interposed small and round tubercle about equal to the diameter of a puncture; each puncture with a small curved seta at center. There are ten intervals, not including the submarginal on each elytron: first or sutural with a row of small, slightly elongate tubercles, somewhat smaller apically, little larger basally, the series arcuately diverging lateral to the scutellum to attain basal margin and there join first costa; second with a row of larger elongate, compressed tubercles which are at least twice as long as wide and quite semicircular in anteroposterior outline, obtusely rounded on summit, separated by an interval about equal to their width; tubercles of fourth and sixth intervals slightly less elongate, otherwise similar to those of the second, those of the eighth smaller, thinner and sharper at summit, while those of the tenth are still smaller, rounded, more or less atrophic and more widely spaced. Each elytron four-costate: these occurring on the third, fifth, seventh and ninth intervals, first three of about equal prominence, the fourth less so: first costa on third interval and formed by more or less coalescent larger compressed tubercles, most strongly confluent toward base, crenulate at summit; tubercles forming the third and fourth costæ less coalescent, those of the fourth sharp at summit. The first and second costæ attain the basal margin; the fourth and least

developed, feebly attains the humeri, and the third terminates a short distance behind the same. Apically the costæ terminate on the upper and arcuate part of the declivity at base of the lobe, the third joins the first, second ending between the two, fourth more or less obsolescent apically. Small curved setæ arise from the punctures at anterior extremity or between the coalescent tubercles on the costæ, between the discrete tubercles of the alternating series.

Undersurface of the body coarsely and densely punctate throughout. Legs moderate in length and rather slender.

Measurements: (Type) Length, 17 mm.; width, 5 mm.

Holotype, female, No. 2722, Museum California Academy of Sciences, in collection of E. C. Van Dyke, taken by him in July 1913, at Camp Nelson, Tulare County, California.

Paratypes in the collections of Dr. E. C. Van Dyke and F. E. Blaisdell, Museum of the California Academy of Sciences. Eleven in number. Ten collected by Dr. Van Dyke on July 6, 15, and 17, 1910, South Fork Kings River Canyon, altitude 5000 feet, and in Paradise Valley, Kings River, altitude 7000 feet, Fresno County, California. I take pleasure in dedicating this fine species to my friend and associate on many profitable collecting trips. Specimens were taken by J. C. Bradley on July 21 and 26, 1907, at an altitude of 6000 to 7000 feet in the Giant Forest, Sequoia National Park, Tulare County, California.

A very distinct species belonging to the *carinata* group of species. *Vandykei* differs from *carinata* Lec. by its less robust, more elongate and somewhat slender form, less coarsely and more densely sculptured elytra; the presence of well-marked rounded tubercles between the punctures of the strial series and the weak frontal carina arising less abruptly from the vertex. In *carinata* the form is more robust and the tubercles of the strial series are irregularly obsolete or more or less evident, rendering the discrete tubercles of the first to the eighth intervals inclusive more conspicuous. The type region for *carinata* Lec. is San Diego, California, but it occurs at least as far north as Santa Barbara, *segnis* Casey being identical and, therefore, a synonym. The smallest specimen of *vandykei,* evidently a male, measures 15.5 mm. in length and 5.5 mm. in width. Species of the *galeata* group have the inner or discal impression of the pronotum deeply foveate and conspicuous.

During the past few years a number of very interesting species of *Helops* have been collected and in greater abundance

than ever before. At the present time I am making known a species collected in 1910 by Dr. E. C. Van Dyke.

**Helops fresnoënsis** Blaisdell, n. sp.

Form elongate, obovate, widest a little behind the middle of the elytra, a little more than twice as long as wide. Color deep black, tarsi slightly piceous. Luster dull and somewhat sericeous.

Head subquadrate, widest across the eyes; sides before the latter, moderately strongly arcuate and convergent to the oblique suture; sides of the epistoma parallel and straight, apex transverse, angles slightly prominent anteriorly and narrowly rounded; frons broadly and quite strongly impressed on the frontal suture, slightly so against and in front of the eyes, moderately and transversely convex between the latter and somewhat so over the antennal fossæ, surface of the epistoma very feebly convex; densely and coarsely punctate, punctures not well defined on the vertex. Labrum transverse, lateral angles broadly rounded, very feebly and broadly sinuate at middle of apex, apical margin with a dense fringe of rather coarse ferruginous hairs; surface densely punctate, punctures irregular in size and smaller than on the frons. Eyes transverse, subreniform, three and three-fourths times wider than long, slightly and broadly emarginate behind the antennæ, upper lobe a fourth larger than the lower portion, rather coarsely faceted. Mentum transversely oblong, apex slightly and broadly emarginate; rather broadly and feebly subcarinate on median line, surface broadly and not very strongly impressed laterally; surface densely punctate, carina rather sparsely and irregularly punctate and more or less glabrous apically and basally. Antennæ long and slender, not incrassate, attaining the middle of the elytra; second joint small and as long as wide, third elongate and not quite four times as long as wide, five times as long as the second; fourth to the eighth inclusive obconical and elongate, equal in length and three times as long as wide, exclusive of the sixth which is a little longer than the seventh; ninth and tenth obconico-triangular, shorter, of about equal length and about a half longer than wide; eleventh oval, about a half longer than wide, slightly oblique, it and the tenth not quite as wide as the ninth. Last joint of the labial palpi quite quadrate apically, distinctly compressed, apex transverse. Last joint of the maxillary palpi subtriangular, no two sides equal, outer border about a third longer than the apical, which in turn is a little longer than the inner border.

Pronotum subquadrate, widest at apical third, about a fourth wider than long; apex truncate in less than moderate circular arc, bead obsolete at middle third, angles obtuse and slightly rounded; sides quite strongly arcuate in apical half, thence slightly convergent, straight to more or less broadly and feebly sinuate before the basal angles, marginal bead moderately coarse; base transverse, three-sevenths wider than apex, bead broad and flat, angles subrectangular and somewhat prominent; disk moderately convex, slightly and

rather broadly impressed within the basal angles, coarsely and densely punctate, punctures slightly less crowded in the central area, with an occasional small impunctate area, punctures extremely minutely setigerous.

Propleuræ and prosternum densely punctate, punctures similar to those of the pronotal disk. Prosternal process shining, sparsely, irregularly and coarsely punctate, quite horizontal and rectangular at apex.

Elytra about two-thirds longer than wide, widest behind the middle; base transverse, as wide as pronotal base, humeri obtuse and not in the least prominent; sides broadly and evenly arcuate to the obtusely ogival apex, noticeably convergent toward base; disk moderately strongly and evenly convex, arcuately declivous at the sides, obliquely so apically, most convex at the declivity; striæ of elongate linear punctures that are not impressed, intervals finely and irregularly punctate, surface more or less finely and irregularly creased. Scutellum about as long as wide, evenly arcuate apically, glabrous with few irregularly placed punctures in basal half.

Epipleuræ slightly concave at base, surface smooth, sparsely and very finely punctate and more or less wrinkled; basal margin slightly prominent and forming the humeral angle. Parapleuræ densely and coarsely punctate as are the propleuræ. Sternal punctures less defined, slightly less dense but otherwise similar.

Abdomen moderately convex, rather densely punctate, punctures smaller, separated by a distance equal to two or four times their diameter; sutures not impressed, second and third segments equal in length, fifth equal to the postcoxal part of the first, second three-fourths longer than the fourth; first and second segments more or less rugose laterally; first with a linear impression on the median line. Each puncture with a moderately long and subdecumbent hair. Legs rather long and slender; femora not swollen and similar; tarsi of moderate length, metatarsi equal to a little more than half the length of their femur.

Measurements: (Type) Length, 17 mm.; width, 7.2 mm.

Holotype, male, No. 2723, collection of E. C. Van Dyke, Museum California Academy of Sciences. Collected by him on July 4, 1910, on the slope of Lookout Peak, altitude 8000 feet, overlooking the South Fork of Kings River Canyon, Fresno County, California. One male paratype taken at the same time and place.

*Fresnoënsis* is apterous with the elytra connate at the suture, and belongs to the group of species that have the propleuræ densely punctate. It should follow *opaca* Lec. in our lists, from which it differs by the more elongate form, finer sculpturing and subsericeous luster. *Simulator* Blais. is more depressed,

pronotum less convex and broader, besides the functional wings are well developed. *Punctipennis* Lec. is smaller and depressed, elytra moderately striate and wings are present. *Spretus* Horn is moderately robust, elytra finely striate, punctation moderately coarse and the surface has a slight æneous luster. In the holotype the left metatibia and tarsus are missing.

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## A New Work on Hawaiian Insects

California entomologists will be interested in a "Handbook of the Insects and Other Invertebrates of Hawaiian Sugar-Cane Fields" recently published by the Hawaiian Sugar Planters' Association Experiment Station at Honolulu. The book, of 400 pages, was compiled and mostly written by Dr. F. X. Williams, formerly of San Francisco. The groups are treated systematically and are well illustrated by cuts. The book will serve as a very useful introduction to the insects of the Hawaiian Islands.—E. P. Van Duzee.

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## Our New Treasurer

The rapid development of the work at the University Farm at Davis and the distance from the place of publication, has led Dr. Freeborn to ask to be relieved from the duties of treasurer of the Pan-Pacific Entomologist. The publication committee, as well as the editor, feel under deep obligations to Dr. Freeborn, and to Professor F. H. Wymore who has handled the work while Dr. Freeborn was absent on sabbatical leave, for the faithful and efficient way in which they have handled the financial end of this undertaking for the past five years. Mr. E. R. Leach has very generously agreed to assume the duties of treasurer and for the present he will have a desk in the entomological department of the California Academy of Sciences, where all subscriptions and remittances should be addressed as follows:

"Mr. E. R. Leach, Department of Entomology, California Academy of Sciences, Golden Gate Park, San Francisco, California."—E. P. Van Duzee.